

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number
WO 2004/050690 A1

(51) International Patent Classification⁷: C07K 7/08,
A61K 38/04, A61P 9/00, 13/00, 25/00, 29/00

ALEWOOD, Dianne [AU/AU]; 145 O'Brians Road, Pullenvale, Queensland 4069 (AU). PALANT, Erika [AU/AU];
5 Kewarra Street, Kenmore, Queensland 4069 (AU).

(21) International Application Number:
PCT/AU2003/001605

(74) Agents: CARROLI, John, Graham et al.; DAVIES
COLLISON CAVE, 1 Nicholson Street, Melbourne,
Victoria 3000 (AU).

(22) International Filing Date: 2 December 2003 (02.12.2003)

(25) Filing Language: English

(81) Designated States (*national*): AE, AG, AI, AM, AT, AU,
AZ, BA, BB, BG, BK, BW, BY, BZ, CA, CH, CN, CO, CR,
CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(26) Publication Language: English

(30) Priority Data:
60/430,306 2 December 2002 (02.12.2002) US

(71) Applicant (*for all designated States except US*):
XENOME LTD [AU/AU]; 50 Meiers Road, Indooroop-
illy, Queensland 4068 (AU).

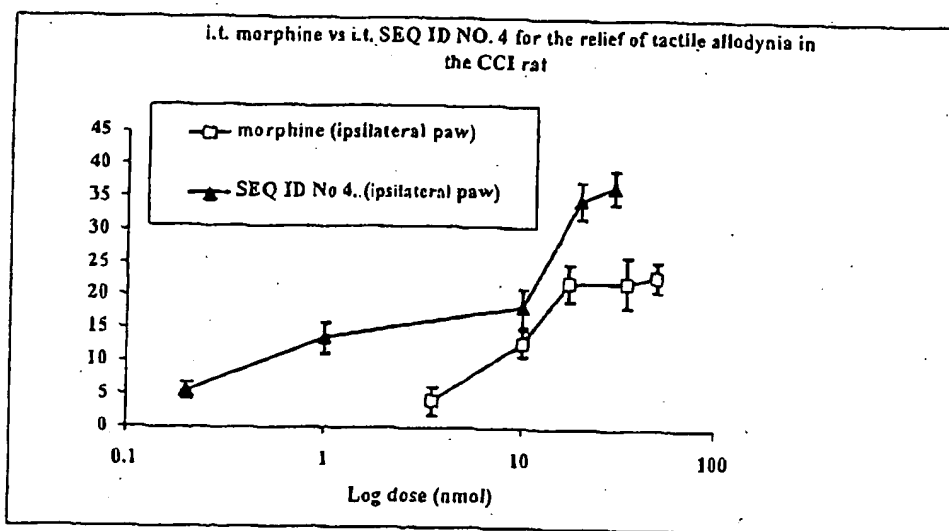
(84) Designated States (*regional*): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW);
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM);
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR); OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): LEWIS, Richard,
James [AU/AU]; 20 Ross Street, Woolloongabba, Queens-
land 4102 (AU). ALEWOOD, Paul, Francis [AU/AU];
145 O'Brians Road, Pullenvale, Queensland 4069 (AU).

(Continued on next page)

(54) Title: NOVEL χ -CONOTOXIN PEPTIDES (-I)



(57) Abstract: An isolated, synthetic or recombinant χ -conotoxin peptide comprising the following sequence of amino acids: Xaa1 Xaa2 Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys SEQ ID NO. 3 where Xaa1 is a N-terminal Xaa1 is a N-terminal pyroglutamate (pGlu) or D-pyroglutamate (DpGlu) residue; and Xaa2 is Asn or a deletion; or such a sequence in which one or more Cys is replaced with its corresponding D-amino acid and/or one or more amino acid residues other than Cys has undergone a side chain modification, or a salt, ester, amide or prodrug thereof. The invention also relates to pharmaceutical compositions comprising these peptides and the use of these peptides in the prophylaxis or treatment of conditions, such as but not limited to, pain, inflammation, incontinence, cardiovascular conditions and mood disorders.

WO 2004/050690 A1